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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/417,767	10/14/1999	JUNYA KAKU	991181	7912

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EXAMINER

FLETCHER, JAMES A

ART UNIT	PAPER NUMBER
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2615

8

DATE MAILED: 02/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/417,767

Applicant(s)

KAKU, JUNYA

Examiner

James A. Fletcher

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 October 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: Page 6, line 19, contains the text "cpletion." The examiner believes the text should read -- completion--. Page 7, lines 20-21 contain the text "without recorded..." The examiner believes the text should read --without being recorded--. Page 8, line 13 contains the text "without processed." The examiner believes the text should read --without being processed--. Page 12, lines 5-6 contain the text "This recording mode requires to record motion images." The examiner believes there are missing or added words that he cannot interpret from the context. Page 13, lines 9-10 contain the text "Due to this, obtained within a same motion image file a plurality of frames of compressed image data related to image nos." The examiner believes there are missing or added words that he cannot interpret from the context. Page 15, lines 15-16 contain the text "there is no sufficient time." The examiner believes the text should read --there is not sufficient time--. Page 15, line 23 contains the text "there is less possibility that breakdown occur during recording." The examiner believes the text should read --there is less possibility that a breakdown occurs during recording--.

Page 5, lines 22-23 indicate that VGA size pictures are considered high-resolution data. Page 11, line 7 indicates that VGA size pictures are considered low-resolution data. This is confusing to the examiner and requires clarification and/or correction.

The terms "preceding image signal" and "current image signal" in the claims, to which the applicant's representative has apparently placed high value, are not adequately described in the specification. The applicant must either provide adequate description of those terms, or remove them from the claims.

Appropriate correction is required.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show "a preceding image signal" "a preceding screen" "a current image signal" and "a current image screen" as cited in claim 1. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "remaining power indicator 21" as noted on page 16, lines 13-14. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

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art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically, claim 1 refers to "a preceding image signal," a "preceding screen," a "current image signal," and a "current image screen." These terms are not adequately shown, described, or disclosed in the specification.

The examiner requires the applicant to identify the corresponding figures corresponding to the claimed invention in order to provide a reasonable level of clarity, not including the abstract.

Response to Arguments

6. Applicant's arguments with respect to claims 1-4 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

8. Claims 1, 2, and 4 are rejected under 35 U.S.C. 102(e) as being anticipated by Acharya (6,301,392).

Regarding claim 1, Acharya discloses an electronic camera comprising:

- an imaging device for periodically outputting an image signal of an object (Fig 7, item 730 "Camera");
- a processor subjecting the image signal, outputted from the imaging device, to a signal processing (Fig 7, item 732 "Image Processing Encoding Circuit");
- a calculator for calculating a specific compression ratio capable of compressing a preceding image signal, outputted from the processor and corresponding to a preceding screen, to a specific size (Col 4, lines 61-67 "In order to determine which of the N quantization threshold parameter sets to use, the invention first computes an indexing ratio R [block 245]. The indexing ratio R may be computed by considering a ratio of X, the presently available storage space, to average space needed to store the remaining number of images to at least approach the minimum M");
- a compressor for compressing a current image signal, outputted from the processor and corresponding to a current screen, using the specific

compression ratio (Col 3, lines 16-18 “the image compression...may be performed on the entire image”); and

- a recorder for recording to a recording medium a plurality of screens of compressed image signals created by the compressor (Col 9, lines 13-15 “captured images are processed by an image processing circuit 732 so that they can be efficiently stored in an image memory unit 734”).

Regarding claim 2, Acharya discloses an electronic camera wherein the calculator calculates the specific compression ration based on an arbitrary compression ratio, a size of the compressed image signal obtained by compressing the preceding image signal with the arbitrary compression ration and the specific size (Col 4, lines 61-67 “In order to determine which of the N quantization threshold parameter sets to use, the invention first computes an indexing ratio R [block 245]. The indexing ratio R may be computed by considering a ratio of X, the presently available storage space, to average space needed to store the remaining number of images to at least approach the minimum M”).

Regarding claim 4, Acharya discloses an electronic camera wherein the first resolution is higher than the second resolution, and the specific size directed to the first recording mode is greater than the specific size directed to the second recording mode (Col 3, lines 3-6 One such image compression technique is based upon the DWT [Discrete Wavelet Transform]” and Fig 2 flowchart item 235 shows “Perform DWT,” which then flows to step 240 “Determine Amount [X] of Presently Available Storage”, eventually passing to step 285 “Encode and store Quantized Data”).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Acharya as applied to claim 1 above, and further in view of Dunton et al (6,151,069).

Regarding claim 3, Acharya suggests a camera with multiple formats (Col 2, lines 55-56 “digital applications such as still or motion imaging”), but does not specifically disclose a camera with a selector for selecting the desired mode.

Dunton teaches an electronic camera comprising a selector (Col 3, lines 18-19 “Mode selection can be made by the user of the apparatus via mechanical controls”) for selecting one of a first recording mode to create within the recording medium a plurality of still image files respectively accommodating the plurality of screens of the compressed image signals (Col 1, lines 65-66 “the second selection is designed to provide data for still images”) and a second recording mode to create within the recording medium a motion image file collectively accommodating the plurality of screens of compressed image signals (Col 1, lines 63-65 “The first selection of scaling, decorrelation, and encoding is designed to provide video data”), wherein the processor creates the image signal having a first resolution when the first recording mode is selected by the selector and creates the image signal having a second resolution when the second recording mode is selected by the selector, and the specific size is different

between the first recording mode and the second recording mode (Col 5, lines 8-11 “the scaling and compression logic may be configured to reduce image size and resolution to yield smaller, less detailed video images, as compared to larger and more detailed still images”).

As suggested by Acharya and taught by Dunton, a multi-purpose camera needs a means for identifying the purpose required. Further, if one of those purposes has a more processor intensive function, that means must also provide instructions to the processor to allocate resources accordingly.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a selector switch for identifying the recording mode, and to have that selection also control the means of image compression and storage.

11. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Acharya and Dunton as applied to claims above, and further in view of Mizoguchi (6,407,772).

Regarding claim 5, Dunton et al suggest an electronic camera wherein the processor creates one screen of image signal at a first predetermined interval when the first recording mode is selected and one screen of image signal at a second predetermined interval when the second recording mode is selected (Abstract “both still mode and video mode”), but does not specifically disclose a second predetermined interval.

Mizoguchi teaches a camera that can have multiple predetermined intervals (Col 3, lines 8-9 "An arbitrary speed equal to or lower than 60 frames/second can be assigned").

As suggested by Dunton et al and taught by Mizoguchi, repetitive picture taking is a known means of taking multiple still pictures at a given rate. Therefore, it would have been obvious to one of ordinary skill in the art to modify Dunton et al in order to take pictures at a second predetermined interval.

Regarding claim 6, Dunton et al suggest an electronic camera wherein the first predetermined interval is longer than the second predetermined interval (Abstract "both still mode and video mode"), but does not specifically state a second predetermined interval.

Mizoguchi teaches a camera with two different predetermined intervals (Col 1, lines 37-40 "In a movie-photographing operation in a camcorder, the photographing rate is fixed as 60 fields/second...conforming to broadcast standards" and Col 3, lines 8-9 "An arbitrary speed equal to or lower than 60 frames/second can be assigned").

As suggested by Dunton et al and taught by Mizoguchi, a movie or video rate camera can also have a slower repetitive picture taking rate. Therefore, it would have been obvious to modify Dunton et al in order to take pictures at a predetermined interval that is longer than the video interval.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Fletcher whose telephone number is (703) 305-3464. The examiner can normally be reached on 7:45AM - 5:45PM M-Th, first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Christensen can be reached at (703) 308-9644.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only).

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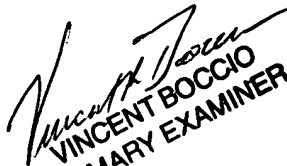
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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

JAF
February 7, 2004


VINCENT BOCCIO
PRIMARY EXAMINER